
Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2009; month=2; day=20; hr=10; min=7; sec=28; ms=521;]

Validated By CRFValidator v 1.0.3

Application No: 10595495 Version No: 2.0

Input Set:

Output Set:

Started: 2009-02-05 15:31:39.642 **Finished:** 2009-02-05 15:31:46.950

Elapsed: 0 hr(s) 0 min(s) 7 sec(s) 308 ms

Total Warnings: 3

Total Errors: 0

No. of SeqIDs Defined: 246

Actual SeqID Count: 246

Error code		Error Description
W	213	Artificial or Unknown found in <213> in SEQ ID (242)
W	213	Artificial or Unknown found in <213> in SEQ ID (245)
W	213	Artificial or Unknown found in <213> in SEO ID (246)

SEQUENCE LISTING

<110>	Mermod, Nicolas Puttini, Stefania Saugy, Damien Girod, Pierre Alain Bucher, Philipp Nguyen, Duc-Quang Calabrese, David
<120>	HIGH EFFICIENCY GENE TRANSFER AND EXPRESSION IN MAMMALIAN CELLS BY A MULTIPLE TRANSFECTION PROCEDURE OF MAR SEQUENCES
<130>	3024-119
<140>	10595495
	2006-04-24
<150>	PCT/EP2004/011974
<151>	2004-10-22
<150×	EP04002722.9
	2004-02-06
<150>	US60/513,574
<151>	2003-10-24
<160>	246
<170>	PatentIn version 3.5
<210>	1
<211>	320
<212>	DNA
<213>	Homo sapiens
<220>	
<221>	misc_binding
<222>	(1)(320)
<223>	MAR of human chromosome 1, nt from 36686 to 37008
<220>	
<221> <222>	misc_binding (1)(320)
<223>	
<400>	1
ttatatt	tatg ttgttatata tattatatta tgttattaga ttatattatg ttgttatatt 60
atataat	taat attatattat atattatata ttatattata taatatataa taatattat
taattat	tata ttacattata taatataa taatattata taattatata ttacattata 180
taatata	ataa taatattata taataatata taattatata atatataata

<223> MAR of human chromosome 1, nt from 1368659 to 1369067

<220>

<221> misc_binding <222> (1)..(409)

```
<220>
<221> misc_binding
<222> (1)..(409)
<223> MAR of human chromosome 1, genomic contig; 1368659 to 1369067
<400> 3
tacacataaa tacatatgca tatatattat gtatatatac ataaatacat atgcatatac
                                                                        60
attatgtata tatacataaa tacatatgca tatacattat gtatatatac ataaatacat
                                                                       120
atgcatatac attatgtata tatacataaa tacatatgca tatacattat gtatatatac
                                                                       180
ataaatacat atgcatatac attatgtata tatacataaa tacatatgca tatacattat
                                                                       240
gtatatatac ataaatacat atgcatatat tatatacata aattatatta tatacataat
                                                                       300
                                                                       360
acatatacat atattatgtg tatatataca taaatacata tacatatatt atgtgtatat
                                                                       409
atacatgata catatacata tattatgtat atatacat aaatacata
<210> 4
<211> 394
<212> DNA
<213> Homo sapiens
<220>
<221> misc_binding
<222> (1)..(394)
<223> MAR of human chromosome 1, genomic contig; 2839089 to 2839482
<400> 4
tatgtatata tacacacata tgtatatata cacacatatg tatatacgta tatatgtata
                                                                        60
tatacacaca tatgtatata cgtatatatg tatatataca cacatatgta tatacgtata
                                                                       120
tatgtatata tacacacata tgtatatacg tatatatgta tatatacaca catatgtata
                                                                       180
tatgtatata tacacacata tgtatatacg tatatatgta tatatacaca catgtgtata
                                                                       240
tatatataca catatgtata tatgtatata tacacacata tgtatatatg tgtatgtata
                                                                       300
tatacacaca tatgtatata tacacatata tatgtatata tacacacata cttatatata
                                                                       360
cacatatata tgtatatata cacatatgta taca
                                                                       394
<210> 5
<211> 832
<212> DNA
<213> Homo sapiens
```

<220>

<221> misc_binding

```
<222> (1)..(832)
<223> MAR of human chromosome 1, genomic contig; 1452269 to 1453100
60
tactatatat attactatat atacaaaata tatattacta tatatacaat atacatatta
                                            120
ctatatatac catatattac tatatatat tactatata attactatat atacaaaata
                                            180
tatattacta tatatactat atattactgt atatacaata tatattacta tatatatact
                                            240
300
atacacaatq tatataacta tatatacaat atatattact atatatacta tatattac
                                            360
420
tactacatat actttatata ttactatata tactatatat tactgtatat acaatatata
                                            480
540
                                            600
cacattatat atgactatat atacacacta tatatattac tatatataca caatatataa
660
actatatatt actatatata cacaatatat attactctat gtatacacta tatatattac
                                            720
780
832
<210> 6
<211> 350
<212> DNA
<213> Homo sapiens
<220>
<221> misc binding
<222> (1)..(350)
<223> MAR of human chromosome 1, genomic contig; 831495 to 831844
<400>
aatatataat atataaatat taatatgtat tatataatat atattaatat attatattat
                                             60
120
180
ataacatatg catatactta tttatatata acatgcatgt acttatttat atatacaata
tatatttata tattatata tatattatat gtatttatat attatatc atatattata
                                            300
```

tgtatttata tattatatat catataatat atatatttat attatata

350

```
<210> 7
<211> 386
<212> DNA
<213> Homo sapiens
<220>
<221> misc binding
<222> (1)..(386)
<223> MAR of human chromosome 1, genomic contig; 1447225 to 1447610
<400> 7
acatttaatt taattatata ctqctatata taattaaatc tatatatcta tataacttat
                                                                        60
aatttatttt aatttaatta tatatactat atagttatat atacatatat gtaattatat
                                                                       120
atagtataat tatagtatat atgtatatat aatgtaagta aatatatagt atatatttat
                                                                       180
atatactata tatttataca tatqtcttta tatatactaa tatatataca catatqtaat
                                                                       240
atgtacatat ggcatatatt ttatagtgta tatatacata tatgtaatat atatagtaat
                                                                       300
atgtaaatat atagtacata tttaattata tggtaatata tacacatata tgtaatatgt
                                                                       360
gtattatagt acatatttta tagtat
                                                                       386
<210> 8
<211> 585
<212> DNA
<213> Homo sapiens
<220>
<221> misc_binding
<222> (1)..(585)
<223> MAR of human chromosome 1, genomic contig; 4955365 to 4955949
<400>
atacacacat atacacatat gtacgtatat atactatata tacacacata tacacatatg
                                                                        60
tacgtatata tactatatat acacatat acacatatgt acgtatatat actatatata
                                                                       120
cacacatata cacatatgta cgtatatata ctatatatac acacatatac acatatgtac
                                                                       180
gtatatatac tatataca cacatataca catatgtacg tatatattat atatacacac
                                                                       240
atatacacat atgtacgtat atatactata tatacacaca tatacacata tgtacgtata
                                                                       300
tatactatat atacacata atacacatat gtacgtatat atactatata tacacacata
                                                                       360
tacacatatg tacgtatata tactatatat acacacatat acacatatgt acgtatatat
                                                                       420
actatatata cacacatata cacatatgta cgtatatata ctatatatac acacatatac
                                                                       480
```

acatatgtac gtatatatac tatataca cacatataca catatgtacg tatatatact

540

```
<210> 9
<211> 772
<212> DNA
<213> Homo sapiens
<220>
<221> misc_binding
<222> (1)..(772)
<223> MAR of human chromosome 1, genomic contig; 5971862 to 5972633
<400> 9
agtaaacata tatatagtaa atatatatag tgtatatata gtaaatatat atagtgcata
                                                           60
tatatagtgc atatatatag tgtatatata gtaaatatat agtgtatata tatagtaaat
                                                          120
atatatagtg tatatatagt aaatatatat agtaaatata tatatactat atatagtaaa
                                                          180
                                                          240
300
360
tatatagtat atatatagta aatatatata tagtatatat atagtaaata tatatagtat
                                                          420
atatatagta aatatatata gtatatatat agtaaatata tatagtatat atatagtaaa
                                                           480
tatatataca ctgtatatat atagtaaata tatatacact gtatatatat agtaaatata
                                                          540
tatacactgt atatatatag taaatatata tacactgtat atatatagta aatatatata
                                                           600
cactgtatat acatagtaaa tatatataca ctgtatatac atagtaaata tatatacact
                                                           660
gtatatacat agtaaatata tatacactgt atatacatag taaatatata tacagtgtat
                                                          720
                                                          772
atacatagta aatatatata cagtgtatat acatagtaaa tatataca gt
<210> 10
<211> 304
<212> DNA
<213> Homo sapiens
<220>
<221> misc_binding
```

<400> 10

<222> (1)..(304)

<223> MAR of human chromosome 1, genomic contig; 6221897 to 6222200

ttatatataa tatattatat attatatata taatatat tatatattaa atatatat	120			
tatatataat atatatata tattaaatat atattatata tataata	180			
atatatata tatatattat atatatta tatattatat atatatatta tatatata	240			
atatatata tatatattat atataatata tattatatat atataata	300			
atta	304			
<210> 11				
<211> 311				
<212> DNA <213> Homo sapiens				
(213) Nomo Sapiens				
<220>				
<221> misc_binding				
<222> (1)(311)				
<223> MAR of human chromosome 1, genomic contig; 9418531 to 9418841				
<400> 11				
tatatataat atttatatat aatattcatg tatttatata taaatattta tatatttata	60			
tataaatatt tatatattta tatataaata tttatatatt tatatataat atttatacat	120			
tatatataat atttatatat tatatataat atttatata aatatttata tattat				
aatatttata tatttatatg tataatatat attttatata tgtatgta				
tatatatgta tgtataatat attttatata tgtatgta	300			
tataatttat a	311			
<210> 12				
<211> 302				
<212> DNA				
<213> Homo sapiens				
<220>				
<221> misc_binding				
<222> (1)(302)				
<pre><223> MAR of human chromosome 1, genomic contig; 15088789 to 1508909</pre>	9 0			
<400> 12				
atataatata tatattatat atataaatat atataaatat ataacatata tattatatat	60			
aaatatatat aaatatataa catatatatt atatataa atatataa atatataaca	120			
tatatattat atataaaat atataaaat atataacata tatattatat atataaatat	180			
atattatata tttatatata taatatata aaatatataa tatatatta tatatataat	240			
atatataaat atataatat tatatttata tataatatat ataaatatat aatatataat	300			

at 302

```
<210> 13
<211> 461
<212> DNA
<213> Homo sapiens
<220>
<221> misc_binding
<222> (1)..(461)
<223> MAR of human chromosome 1, genomic contig; 6791827 to 6792287
<400> 13
60
120
180
240
                                  300
atatatatta tatatacaca tatgtaatat atattataca cacacatata atatatta
tatacacata tataatata attatata catatataat atatattata tatacacata
                                  360
420
aatatataca catatataat atatatatta tatatgcaca t
                                  461
<210> 14
<211> 572
<212> DNA
<213> Homo sapiens
<220>
<221> misc binding
<222> (1)..(572)
<223> MAR of human chromosome 1, genomic contig; 163530 to 164101
<400> 14
60
tttatataat atatatatta taattaatat attatata atatatata tatatataat
                                  120
180
300
                                  360
```

atatatataa tatataatat aatatatata atatataata	420
dedecated tatatage acceptance described tatatage tatatage	120
atatttaata tatttattaa ttatttgtta tatatttatt	480
tttaatatat tataactata tattatatta taattatata tattatatat atacaattat	540
aattatatat tatatatact tataatatat at	572
<210> 15	
<211> 357	
<212> DNA <213> Homo sapiens	
<220>	
<221> misc_binding	
<222> (1)(357)	
<223> MAR of human chromosome 1, genomic contig; 1842332 to 1842688	
<400> 15	
tatatctata tatatctata tatatataat atagataata tctatatata taatatagat	60
aatattatct atatataata tagataatat tatctatata taatatagat aatattatct	120
atatataaaa ttatattata tctatatata ttatatata	180
tataatatag ataatatcta tatataaata gataatatct atatatataa tatagatatt	240
atctatatta tagatataga taatattatc tatattatag atattatcta tatataatat	300
agataatatt atctatatta tatatataat atatctatat tatctataat attatct	357
<210> 16	
<211> 399 <212> DNA	
<213> Homo sapiens	
<220>	
<221> misc_binding	
<222> (1)(399)	
<223> MAR of human chromosome 1, genomic contig; 2309560 to 2309958	
<400> 16	
attatatata atatatatta tatattatat atatcaagca gcagatataa tatataatat	60
atataatata tataatatat attgtatatt atataatata taatatatat	120
gtatattata taatataa tatatataat atatattgta tattatataa tatataatat	180
atataatata tattgtatat tatataatat ataatatatg taatatatta tgtaatatat	240
tatataatat atattatata ttatatataa tatatattat	300
tatattacat atattacgta atatatgtta tatattacat ataatatata acatatatta	360

387

acataatata ttatatata tatatta

<210> 17	
<211> 394	
<212> DNA	
<213> Homo sapiens	
<220>	
<221> misc_binding	
<222> (1)(394)	
<223> MAR of human chromosome 1, genomic contig; 2231759 to 2232152	2
<400> 17	
atatatactt ataaattata tacttatata tacttataaa ttatatactt atatatactt	60
ataaattata tacttatata tacttataaa ttatatactt atatatactt ataaattata	120
tacttatata tacttataaa ttatatactt atatatactt ataaattata tacttatata	180
tacttataaa ttatatactt atatataatt ataaattata tacttatata taattataaa	240
	200
ttatatactt atatataatt ataaattata tacttatata taattataaa ttatatactt	300
atatataatt ataaattata tacatatata taattataaa ttatatacat atataattat	360
atatataatt ataaattata tacatatata taattataaa ttatatacat atataattat	300
aaattatata catatataat tataaattat atac	394
dateata acataca cacaaacaa acaa	331
<210> 18	
<211> 387	
<212> DNA	
<213> Homo sapiens	
<220>	
<221> misc_binding	
<222> (1)(387)	
<223> MAR of human chromosome 1, genomic contig; 7406524 to 7406910)
<400> 18	
tatattatat ataatatat ttatatataa tataaataat	60
aaataatata taatatata ataatatata atatataata	120
taacatataa ataatatata taatatataa ataatatata taatatataa ataata	180
taatatataa aaatatataa tatataatac atatataaat aatatattat attatatatg	240
atacataata tattatatat aatatattat atgatacata atatattata tagaatatat	300
tatatgatac ataatatatt atatagaata tattatatga tacataatat attatatgat	360

<210> 19 <211> 370 <212> DNA <213> Homo sapiens <220> <221> misc_binding <222> (1)..(370) <223> MAR of human chromosome 1, genomic contig; 9399572 to 9399941 <400> 19 60 tatacacata tgtatacaca tatatacaca tatatacaca catatataca catatataca 120 cacatatata cacatatata cacatataca catataca catatataca 180 tatatacaca tatatataat atacacacat atatatacac atatatacac acatatatac 240 300 acatatatac acatatatac atatatacac atatatacat atatacacac atatatacac 360 atacatatac 370 <210> 20 <211> 377 <212> DNA <213> Homo sapiens <220> <221> misc_binding <222> (1)..(377) <223> MAR of human chromosome 1, genomic contig; 12417411 to 12417787 <400> 20 attatatata atacatataa ttatatattt atatataaat tataataaat acatataatt 60 atatatttat atataaatta tatataataa atacatataa ttacatatat ttataaatta 120 taataaatac atataattac atatattat atatgaatta tatataataa atacatataa 180 240 atataattta tatataat tatatata ataaatatat ataatttata tatataatta 300 360 atatataa tttatat 377

```
<213> Homo sapiens
<220>
<221> misc_binding
<222> (1)..(1524)
<223> MAR of human chromosome 1, genomic contig; 1643307 to 1644830
<400> 21
                                                                       60
tataaatata tataaatata taaatatata taaatatata aatatata aatatatata
aatatataaa aatatataaa tatatataaa tatatataaa tatataaaaa cataaaaata
                                                                      120
tatataaata tatataaata tataaaata tataaatata taaatatata aaaatataca
                                                                      180
aatatataaa tatatacata aatatatata aatatata aatatataaa aatatatata
                                                                      240
aatatataaa tatatataaa tatatataaa tatataaaa tatataaaaa tatatataaa
                                                                      300
tatataaata tataaaaata tatataaata tataaatata taaatatata taaatatata
                                                                      360
aatatataaa taaatataag tatttatgaa tatatatgaa tatataaata tataaaaaat
                                                                      420
```

atataaat atataaatat atataaatat ataaatatat acatatatac atataaaat

aaataaatat aagtatttat gaata

480

<212> DNA